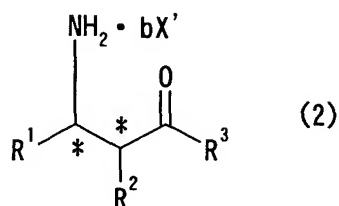


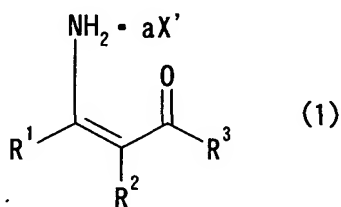
What is claimed is:

1. A method for producing an optically active β -amino acid of formula (2),



5 ,wherein b is 0 or 1; the symbol * shows that the carbon atom is a chiral carbon; R^1 is a hydrogen atom, an alkyl group, a substituted alkyl group, a cycloalkyl group, a substituted cycloalkyl group, an aralkyl group, a substituted aralkyl group, an aryl group, a substituted aryl group, an aliphatic heterocyclic group, a substituted aliphatic heterocyclic group, an aromatic heterocyclic group, a substituted aromatic heterocyclic group, an alkoxy group, a substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group or a substituted aryloxy group; R^2 is a hydrogen atom, an alkyl group, a substituted alkyl group, a cycloalkyl group, a substituted cycloalkyl group, an aralkyl group, a substituted aralkyl group, an aryl group, a substituted aryl group, an aliphatic heterocyclic group, a substituted aliphatic heterocyclic group, an aromatic heterocyclic group, a substituted aromatic heterocyclic group, an alkoxy group, a substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group, a substituted aryloxy group, an alkyloxycarbonyl group or
20 an aralkyloxycarbonyl group; R^3 is an alkoxy group, a
25

substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group, a substituted aryloxy group, an amino group or a substituted amino group, X' is an acid, and R¹ and R² or R² and R³ may
5 be combined together to form a ring provided that R¹ and R² are not a hydrogen atom simultaneously, which comprises subjecting an enamine of formula (1),



10 , wherein R¹, R², R³ and X' have the same meanings as described above, and a is 0 or 1, to an asymmetric hydrogenation.

2. The method as claimed in claim 1, wherein the asymmetric hydrogenation is carried out in the presence
15 of an acid.

3. The method as claimed in claim 1, wherein the asymmetric hydrogenation is carried out in the presence of a fluorine-containing aliphatic alcohol.

4. The method as claimed in any of claims 1 to 3,
20 wherein the asymmetric hydrogenation is carried out in the presence of a catalyst for the asymmetric hydrogenation.

5. The method as claimed in claim 4, wherein the catalyst for the asymmetric hydrogenation is a transition metal complex.

25 6. The method as claimed in claim 5, wherein the

transition metal complex is a complex of a metal which belong to the eighth group of the periodic table.

7. The method as claimed in either claim 5 or claim 6, wherein the transition metal complex has a chiral
5 ligand.

8. The method as claimed in claim 7, wherein the chiral ligand is a chiral phosphine ligand.

9. The method as claimed in claim 1, wherein the asymmetric hydrogenation is carried out in the presence of
10 an acid and a fluorine-containing aliphatic alcohol.